**3GPP TSG-SA WG2 Meeting #S2-160AH-e *S2-2400769r05***

**22 – 29January, 2024,** **Electronic meeting**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **23.502** | **CR** | 4707 | **rev** |  | **Current version:** | **18.4.0** |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
|  | | | | | | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **x** |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Procedures for UPF relocation considering congestion exposure | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Samsung | | | | | | | | | |
| ***Source to TSG:*** |  | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | XRM | | | | |  | ***Date:*** | | |  |
|  |  | | | |  | |  | | |  |
| ***Category:*** |  |  | | | | | ***Release:*** | | |  |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) … Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Per CR4219r6 approved for TS 23.501 in the previous meeting;  - When serving PSA UPF or NG-RAN is changed e.g. due to inter-NG-RAN handover or PSA UPF relocation, target NG-RAN and target PSA UPF should keep contributing to ECN marking for L4S for the QoS Flow. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | UPF relocation procedures(i.e. Nsmf\_PDUSession\_SMContextStatusNotify service operation) is modified to consider use on ECN marking for L4S. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | UE mobility makes unnecessary signaling b/w 5GS and AF to switch congestion exposure method. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.2.8.2.8 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **N** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **N** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **N** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

\*\*\*\*\*\*\*\*\*\* First Change \*\*\*\*\*\*\*\*\*\*

5.2.8.2.8 Nsmf\_PDUSession\_SMContextStatusNotify service operation

**Service operation name:** Nsmf\_PDUSession\_SMContextStatusNotify.

**Description:** This service operation is used by the SMF to notify its consumers about the status of an SM context related to a PDU Session (e.g. PDU Session Release due to local reasons within the SMF, PDU Session handover to a different system or access type, SMF context transfer, triggering I-SMF selection for the PDU Session, keeping ECN marking for L4S as described in clause 5.37.3 of TS 23.501 [2]). The SMF may use this service operation to update the SMF derived CN assisted RAN parameters tuning in the AMF. The SMF may report the DDN Failure with NEF Correlation ID to the AMF.

**Input, Required:** Status information.

**Input, Optional:** Cause, SMF derived CN assisted RAN parameters tuning, New SMF ID for SM Context Transfer (see clause 4.26.5.3) or SMF set ID, Small Data Rate Control Status, APN Rate Control Status, DDN Failure detected in (I-/V-)SMF, target DNAI information, list of NWDAF IDs and corresponding Analytics ID(s).

**Output, Required:** Result Indication.

**Output, Optional:** None.

The target DNAI information indicates the target DNAI for the current PDU session or target DNAI for next PDU session.

\*\*\*\*\*\*\*\*\*\* End of Changes \*\*\*\*\*\*\*\*\*\*